REMARKS

Claims 1-20 are pending in this application. By this Amendment, claims 1-5, 7-9 and 11-20 are amended. No new matter is added.

I. Rejection of Claims 1-6, 9, 10 and 13-20 Under 35 U.S.C. §103(a)

The Office Action rejects claims 1-6, 9, 10 and 13-20 under 35 U.S.C. §103(a) over Publication US 2002/0077060 to Lehikoinen et al. ("Lehikoinen") in view of U.S. Patent No. 6,343,317 to Glorikian. Applicants respectfully traverse the rejection.

Lehikoinen does not teach or suggest "a service providing system for associating service with a virtual object corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual space, ... service corresponding to the specified space is provided according to the service information stored in the service device," as recited in claim 1, and as similarly recited in claims 11, 12 and 15-20. Lehikoinen in view of Glorikian would not have rendered obvious such a services providing system.

The Office Action asserts that Lehikoinen discloses the elements of claim 1, and further asserts at page 3:

> Thus, an operating range of a short range communication beacon for effecting wireless communication between the mobile station and the beacon is specifically a **virtual object in a virtual space associated with an actual space**. In addition, providing location dependent services when the mobile station (mobile member) is within said operating range is specifically **providing service corresponding to a the virtual object according to a positional relationship between a movable mobile member and the virtual object**. Further, in order to provide service corresponding to the virtual object, the service providing system must **associate service with a virtual object** (emphasis in original).

Notwithstanding these assertions, Lehikoinen does not teach or suggest providing a service corresponding to a specified space, as in claims 1, 11, 12 and 15-20.

In a mobile communication system, Lehikoinen discloses a beacon capable of communicating with a mobile station when the mobile station is located within the operating range of the beacon (abstract). However, although Lehikoinen's disclosed beacon provides information service when the mobile station comes in the range of the beacon, it does not provide a service corresponding to a specified space as recited in claims 1 and 15-20. Glorikian teaches providing information based on a position acquired by GPS or the like, but does not teach or suggest providing a service corresponding to a specified space.

Specifically, Glorikian does not teach or suggest a service providing system for associating service with a virtual object corresponding to a specified space, for disposing the virtual object in a virtual space associated with an actual object, and for providing service corresponding to the specified space according to a positional relationship between a movable mobile member and the virtual object. In the claimed invention, the correlation between the position information and the service is performed based on a "virtual object." The claimed invention makes the operation of the service providing system simpler to change and maintain because the service is delineated based on the virtual object, which is identified by a simpler shape and location description. Glorikian's GPS positioning does not teach or suggest such a virtual object, therefore, is not as simple or streamlined to change or maintain the operational system.

If combined, Lehikoinen and Glorikian may infer service being provided to a terminal when in a location or a state in which position information is acquired, but they do not combine to result in providing a service corresponding to a specified space. The combined features of Lehikoinen and Glorikian do not teach or suggest a specified space to which the corresponding service is provided. Rather, the combination results in a service that is equally provided to a range where position information is acquired.

Even if combined, Lehikoinen and Glorikian do not teach or suggest the implementation to provide a service corresponding to specified space as claimed. As claimed, a service corresponding to a specified space is a service that enables control such that a service is provided in some locations, but not provided in other locations.

Fig. 4 of the Applicants' specification clearly discloses providing an implementation of a service corresponding to a specified space (virtual object). In contrast, the combination of Lehikoinen and Glorikian does not result in such a claimed feature, and is devoid of a control implementation that would even suggest or infer such a shape and location of a virtual object defining the specified space. Accordingly, even if combined, Lehikoinen and Glorikian result in a service equally provided for locations where position information is acquired, but do not result in a technology which controls provision of service for each specified space. For the foregoing reasons, Lehikoinen and Glorikian do not teach or suggest the claimed invention.

Claims 1 and 15-20 would not have been rendered obvious by Lehikoinen in view of Glorikian. Claims 2-6, 9, 10, 13 and 14 depend from claim 1, and thus also would not have been rendered obvious by Lehikoinen in view of Glorikian. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejection of Claims 7, 8, 11 and 12

The Office Action rejects claims 7, 8, 11 and 12 under 5 U.S.C. §103(a) over Lehikoinen in view of Glorikian, and further in view of U.S. Patent No. 6,697,018 to Stewart. Although the Office Action cites in its Notice of References cited (PTO-892) U.S. Patent No. 6,326,918 to Stewart, it is Applicants' belief that the Examiner intended to cite U.S. Patent No. 6,697,018 to Stewart, as recited on page 11 of the Office Action. Applicants respectfully traverse the rejection.

Lehikoinen does not teach or suggest "when it is determined that the mobile member is disposed in the inside area of the specified space identified by the shape and location of the virtual object, the mobile member or the another apparatus is operated based on the operation information corresponding to the specified space stored in the storage device," as recited in claim 7, and as similarly recited in claim 8; and "wherein, when it is determined, according to the object information stored in the storage device, that the positional relationship between the mobile member and the specified space satisfies a predetermined condition, the mobile member or the another apparatus is operated based on the operation information corresponding to the specified space stored in the storage device," as recited in claim 11, and as similarly recited in claim 12. As previously set forth, Lehikoinen in view of Glorikian would not have rendered obvious such a service providing system.

Regarding claim 7, the Office Action, in paragraph 25, asserts that Stewart cures the deficiencies of Lehikoinen and Glorikian, and further asserts "Said print request and E-mail messaging specifically are **service information being operation information** for operating the printer and the E-mail program (**another apparatus**)" (emphasis in original).

Notwithstanding these assertions, Stewart does not cure the deficiencies of Lehikoinen in view of Glorikian, and does not teach or suggest that a mobile member is operated on the operation information corresponding to the specified space stored in the storage space, as recited in claim 7.

Stewart discloses that:

> For example, in one application, an access point receives a print job from a user's mobile unit and sends it to a printer available at a destination point designated by the user so that the document is printed and available to the user upon his arrival at his destination. In another application according to the invention, upon detecting the arrival of a user's mobile unit a destination, a message, for example, an E-mail message, is sent to the user's rental car agency.

(Col. 3, lines 6-13). However, Stewart does not relate to a device operation service being accomplished only in a specified space. Even if combined, Lehikoinen, Glorikian and Stewart do not result in the claimed service providing system. For the foregoing reasons, Lehikoinen, Glorikian and Stewart do not teach or suggest the claimed invention.

Claims 7, 8, 11 and 12 would not have been rendered obvious by Lehikoinen in view of Glorikian, and further in view of Stewart. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Richard J. Kim
Registration No. 48,360

JAO:RJK/mdw

Date: June 29, 2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461